



BEAM HANDLING COMPONENTS

National Electrostatics Corp.

Switching and Analyzing Magnets

Switching Magnets

Below are some of the switching magnets NEC has provided. Custom magnets may be available to meet your specific needs. Chamber and stands for these magnets are typically provided as well. Typical chamber exit ports are 0o, ±15o, ±30o, ±45o (except SW2). Other angles may be available upon request.

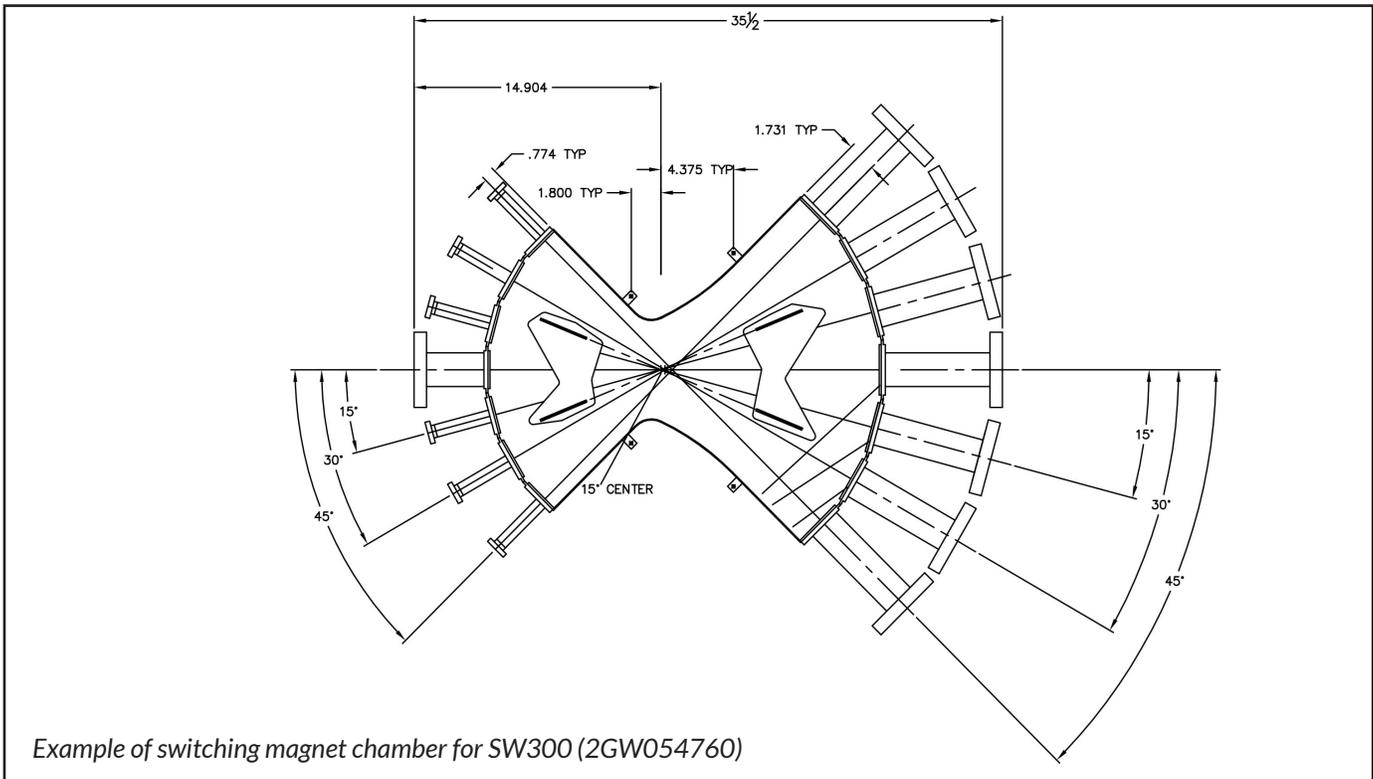
	P (ME/z ²) amu-MeV	Gap (pole to pole)	Bending Radius	Max Current/ Voltage	Cooling Water (20°C)	Weight (w/o chamber)
SW1200 2BA020070	1289 at 15° 328 at 30° 150 at 45°	34 mm	359.1 cm at 15° 181.1 cm at 30° 122.5 cm at 45°	184A at 45V	2.8 GPM (11 l/m)	24,630 lbs (11,200 kg)
SW600 2BA020060	610 at 15° 156 at 30° 70.3 at 45°	34 mm	245.9 cm at 15° 124.0 cm at 30° 83.9 cm at 45°	180A @ 34V	2.1 GPM (8 l/m)	14,340 lbs (6,520 kg)
SW300 2BA017470	350 at 15° 91 at 30° 41 at 45°	31.8 mm	178.6 cm at 15° 90.1 cm at 30° 60.9 cm at 45°	100A at 40V	2 GPM (7.6 l/m)	4,770 lbs (2,160 kg)
SW150 2BA017121	150 at 15° 38 at 30° 17 at 45°	27 mm	123.4 cm at 15° 62.2 cm at 30° 42.2 cm at 45°	100A at 40V	1 GPM (4 l/m)	2,860 lbs (1,300 kg)
SW70 * 2BA017370	70 at 15° 20 at 30°	32 mm	90.65 cm at 15° 45.7 cm at 30°	65A at 30V	.75GPM (2.8 l/m)	1,930 lbs (875 kg)
SW20 ** 2BA017080	82 at 15° 21 at 30°	32 mm	90.6cm at 15° 45.7 cm at 30° 30.9cm at 45°	65A at 30V	0.7 GPM (2.7 l/m)	2,005 lbs (910 kg)
SW6 2BA017240	25.56 at 15° 6.5 at 30° 2.97 at 45°	30.5 mm	80.6 cm at 15° 40.6 cm at 30° 27.5 cm at 45°	55A at 40V	0.6 GPM (2.5 l/m)	726 lbs (329 kg)
SW2 2BA013270	16.5 at 2.5°	19mm	291cm at 2.5°	20A at 20V	N/A	90 lbs (40kg)

Cooling water pressure drop is 4 kg/cm² (60 psi)

* For HE end analyzing use (pole scribe marks differ)

**For inflection use (pole scribe marks differ)

Switching and Analyzing Magnets



Analyzing Magnets

NEC also provides Analyzing Magnets. Below are specifications for a few of our 90 degree magnets, how-ever many other magnets are available. If interested, please inform us of the needed specifications and we can suggest a magnet model or custom magnet suitable for your needs.

Mass Energy Product (MEP)	5	14.7	31.5	176
Radius	12" (30.5cm)	29.5" (75cm)	29.5" (75cm)	50" (1270mm)
Pole Gap	1.125" (2.86cm)	2" (50.8cm)	2" (50.8cm)	1" (28mm)
Pole End Angle	28.7°	27.54°	28.5°	27.3°
Current	40A at 60V	92A at 45V	179A	289A at 42V
Water Cooling	0.7GPM (2.5 l/min)	1.3 GPM (5 l/min)	2.6 GPM (10 l/min)	157 GPM (595 l/min)
Weight	2,000 lbs (910 kg)	8,800 lbs (4,000kg)	11,600lbs (5,275 kg)	9,040 lbs (4,100kg)
Chamber	2GW070030	2GW067270	2GW067430	2GW054610

Cooling water pressure drop is 4 kg/cm² (60 psi)

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